

**Title: SYSTEM TO VARY CAPACITANCE BASED
ON A CONTROL SIGNAL**

ABSTRACT

Some embodiments provide a plurality of capacitors coupled in parallel, a
5 plurality of capacitor switches, each one of the capacitor switches coupled in series with a
respective one of the plurality of capacitors, one or more biasing circuits to independently
set each of the plurality of capacitor switches to one of a reset voltage, a first threshold
voltage, and a second threshold voltage, and a plurality of control switches, each of the
control switches to couple and to decouple a respective one of the plurality of capacitor
10 switches to and from a control voltage.